

**Keystone Pipeline Project:
Class I, II, and III Cultural Resource Investigations
in Eastern North Dakota**

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Abstract

TransCanada Keystone Pipeline, LP intends to construct and operate a new crude oil pipeline originating in Alberta, Canada and terminating in the Midwestern United States. In North Dakota the proposed route of the pipeline includes Cavalier, Pembina, Walsh, Nelson, Steele, Barnes, Ransom, Sargent, and Dickey counties. For the undertaking, the lead Federal agency is the Department of State and the lead state agency is the Public Service Commission.

ENSR Corporation, a subcontractor of TransCanada Keystone Pipeline, LP, contracted Metcalf Archaeological Consultants, Inc. to conduct cultural resource investigations of the proposed pipeline route within North Dakota. The length of the pipeline in North Dakota is approximately 216.9 miles. The levels of cultural resource investigation, completed during 2006, include Class I, II, and III. The Class I literature and files search was one mile wide centered on the proposed pipeline centerline. The Class II reconnaissance level vehicular survey covered 100% of the proposed pipeline route. Finally, the Class III cultural resource pedestrian inventory included a 31% sample of the proposed pipeline route, 300 feet wide centered on the proposed centerline. A total of 67.35 miles, or approximately 2,449.1 acres, comprised the Class III inventory. In addition to the pedestrian survey, 46 shovel test probes were excavated at locations with potential for buried cultural deposits.

Twenty-six cultural resources were recorded during the Class III inventory, including three archaeological sites, one archaeological site lead, seven historic sites, one historic site lead, and eight archaeological isolated finds. In addition, six previously documented historic railroad sites were updated.

Subsurface testing was conducted at 32RM160 and 32RMx89 in the fall of 2006. Sites 32RM160 and 32RMx89 are recommended as not eligible for the National Register of Historic Places. TransCanada Keystone Pipeline, LP plans to avoid two unevaluated archaeological sites (32BA170 and 32PB202) by rerouting the pipeline. Survey of these reroutes is scheduled for spring 2007. Historic site 32SA81 is recommended as not eligible for the National Register. Historic site lead 32NEx99 remains unevaluated for the National Register. The portion of site 32WA247 within the proposed pipeline right-of-way is recommended as a non-contributing element to the overall site and rerouting of the pipeline is not recommended. The 11 historic railroads are potentially eligible for the National Register and will be avoided by boring the pipeline underneath the sites. The eight isolated finds are recommended not eligible for the National Register.

Provided that sites 32PB202 and 32BA170 are avoided by TransCanada Keystone Pipeline, LP, a finding of *no historic properties affected* is recommended for the undertaking as described herein, surveyed and mapped.

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Chapter 1: Comprehensive Introduction

Introduction

TransCanada Keystone Pipeline, LP (TransCanada) intends to construct and operate a new pipeline (Mainline) approximately 1,845 miles long, originating in Hardisty, Alberta, Canada and terminating in Patoka, Illinois, United States (Figure 1). The crude oil pipeline will run through eastern North Dakota, from the Canada/Cavalier County border approximately 216.9 miles south to the Sargent County/South Dakota border. The proposed pipeline route runs through Cavalier, Pembina, Walsh, Nelson, Steele, Barnes, Ransom, Sargent, and Dickey counties in North Dakota (Figure 2). The survey corridor is 300 feet wide centered on the proposed pipeline centerline. From this point forward, the 300 foot wide survey corridor will be referred to as the project corridor. For the proposed undertaking, the Department of State is the lead Federal agency and the lead state agency is the Public Service Commission.

This report documents cultural resource investigations conducted by Metcalf Archaeological Consultants, Inc. (MAC) in 2006 along the TransCanada Keystone proposed pipeline route in North Dakota. Chapter 1 is an introduction to the project, including the project description and locations. Chapter 2 (project setting) and Chapter 3 (cultural chronology) provide context for the cultural resource investigations discussed here. The Class I files and literature search is reviewed in Chapter 4. The Class III inventories are discussed in Chapter 5. Chapter 6 provides the results of the Class III investigations. Chapter 7 is a summary of the project including recommendations for the treatment of cultural resources along the proposed pipeline route and an unanticipated discovery plan.

Several appendices supplement information contained in the report. Appendix 1 is a copy of the project Research Design. Note, two changes have occurred since the Research Design was submitted to the North Dakota State Historic Preservation Office (NDSHPO). First, the width of the construction corridor was 125 feet wide and now is 110 feet wide. Second, regarding Native American consultation, the Department of State has determined that it will conduct Nation to Nation consultation with Native American Tribes. The geoarchaeological analysis produced by LaRamie Soils Service, Inc. is in found in Appendix 2. A final version with complete results and monitoring recommendations will be provided in a forthcoming addendum report. Appendix 3 contains a set of project maps depicting the 2006 Class III investigations. The complete files search for all work conducted in 2006 is listed in Appendix 4. Curriculum vitae of appropriate personnel comprise Appendix 5. Appendix 6 contains copies of the site forms submitted to the North Dakota State Historic Preservation Office. Finally, Appendix 7 provides a copy of the Native American consultation letter prepared by MAC and list of the Tribes to which it was sent. It should be noted that we were requested to initiate the invitation to consult early in the project history, at a time when there was some confusion about who would be responsible for consultation.

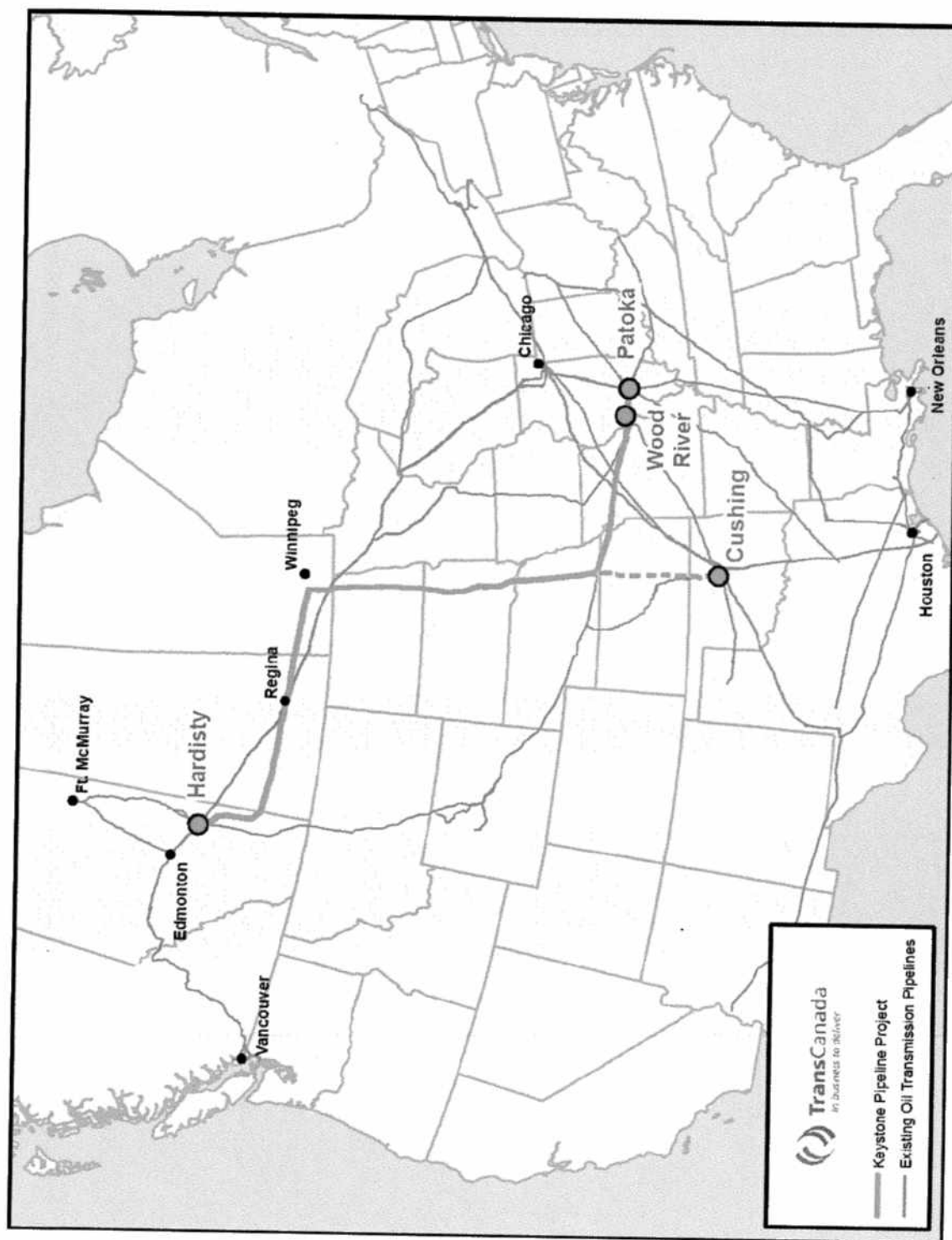


Figure 1. TransCanada Keystone Pipeline Project overview map (Courtesy of ENSR Corporation).

Keystone Pipeline - Phase I - North Dakota
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Figure 2. Map displaying the general location of the proposed pipeline route within North Dakota based on Leppard's (1939) map.

Project Description

Metcalf Archaeological Consultants, Inc. was contracted by ENSR Corporation (ENSR) to conduct cultural resource investigations within North Dakota. (ENSR is subcontracted by TransCanada to manage the biological and cultural resources surveys for the Keystone Pipeline Project.) The cultural resource inventory for the TransCanada Keystone Pipeline Project included several levels of investigation. First, a Class I investigation (literature and files search) was conducted by MAC in January of 2006. One hundred percent of the proposed pipeline route in North Dakota, one-half mile on each side of the proposed pipeline centerline, was covered by the Class I investigation. The results of the files search were plotted on USGS 7.5' quadrangle maps and discussed with NDSHPO archaeologists. A research design was proposed in consultation with the NDSHPO and based on the results of the files search, areas were selected for the Class III intensive pedestrian inventory.

The Class II investigation was conducted by Michael McFaul, Principal Geoarchaeologist of LaRamie Soils Service, Inc. (LSS), subcontracted by MAC to provide geoarchaeological analysis for the Keystone Pipeline Project. The reconnaissance survey provided a characterization of the geomorphological landscape and identified additional areas to be investigated during the Class III pedestrian survey. The Class II reconnaissance level

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